

REMARKS

Entry of the foregoing is respectfully requested. By the foregoing amendment, claims 38 and 39 have been added. New claim 38 finds support, at the very least, at page 4, lines 16-21, and at page 4, line 22, to page 5, line 15, of the specification as filed. New claim 39 finds support, at the very least, at page 8, lines 7-15. No new matter has been added by the present amendment.

RESPONSE TO RESTRICTION REQUIREMENT

The Examiner has required that the present application be restricted, under 35 U.S.C. §§ 121 and 372, to one of the following three groups of claims:

Group I: Claims 17-19, 22-29, 31, 30, and 33-34, drawn to monoclonal antibodies, methods of making and using said antibodies directed against Taylorella and kits which comprise antibodies to Taylorella components, reagents and blocking reagents. (As discussed in more detail below, applicants consider that pending claims 35-37, which are not recited in any group, and which are dependent on claims allotted to Group I, also belong to Group I).

Group II: Claims 20 and 32, 30, 33-34 are drawn to claims which recites a composition comprising a protein, and kits which comprise protein components, reagents and blocking reagents. (Applicants consider that Group II has also been meant to include the method of identification according to claim 27, which comprises the use of an immunogenic proteins capable of interacting with the monoclonal antibodies of Group I).

Group III: Claims 21 and 32, drawn to antibodies which will interact with monoclonal antibodies and therefore are anti-antibodies of a different type and binding specificity and not to *Taylorella*. (Applicants consider that Group III has also been meant to include the method of obtaining such anti-antibodies (claim 23), the strains of hybridomas according to claim 25, and the identification method and kit according to the invention (claims 27, 30, 33, and 34) as far as such anti-antibodies are concerned).)

1. ELECTION

Applicants hereby elect, with traversal, the invention defined by the Examiner as Group I, claims 17-19, 22-29, 31, 30 and 33-34, drawn to monoclonal antibodies, methods of making and using said antibodies directed against *Taylorella*, and kits which comprise antibodies to *Taylorella* components, reagents and blocking reagents. Applicants wish to bring the Examiner's attention to the fact that pending claims 35-37 were not included in the groups provided by the Examiner. Claims 35-37 are dependent on claims 28, 26 and 27, respectively, and relate to methods of identifying a bacterium of the species *T. equigenitalis* and methods of diagnosing an infection by *T. equigenitalis*. Furthermore, new claims 38 and 39 are drawn to a method of obtaining a protein using the monoclonal antibody or fragment of claim 17 (claim 38), and a method of producing a vaccinal composition comprising the protein of new claim 38 (claim 39). Thus, both of these new claims are drawn to methods of using antibodies directed against *Taylorella*. It is therefore believed that claims 35-37 and new claims 38-39 should be included with the claims of Group I (drawn to monoclonal antibodies, methods of making and using said antibodies

directed against Taylorella, and kits which comprise antibodies to Taylorella components, reagents and blocking reagents) and applicants therefore elect, with traversal, the invention of Group I, claims 17-19, 22-29, 31, 30 and 33-34 *and* 35-39.

2. The Restriction Requirement Can Be Withdrawn

Applicants respectfully traverse the restriction requirement. Applicants assert that the Examiner has not properly applied the unity of invention standard of practice set forth in M.P.E.P. § 1893.03(d).

A group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. M.P.E.P. § 1893.03(d). If an application contains more than one invention, applicants have the right to include in a single application those inventions which are so linked as to form a single general inventive concept. Further, a group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. The special technical feature is what defines the contribution which each claimed invention, considered as a whole, makes over the prior art. M.P.E.P. § 1893.03(d). Applicants submit that the technical features which form the special technical relationship among the inventions of the present application are the *T. equigenitalis* specific monoclonal antibodies of the claims of Group I.

At M.P.E.P. § 1893.03(d), an example is cited wherein “a corresponding technical feature is exemplified by a key defined by certain claimed structural characteristics which correspond to the claimed features of a lock to be used with the claimed key.” This key/lock situation precisely corresponds to the present antibody/protein and antibody/anti-antibody situation.

Further examples, which illustrate the principles of unity of invention, are found in Appendix AI of the M.P.E.P. (see the PCT Administrative Instructions, Annex B, Part 2). Examples 8-17 (at M.P.E.P. pages AI-41-43) are particularly relevant to the present application. These examples show that unity exists between claims of the same category (product claims) which share a corresponding technical feature, even though they relate to products of which the structures are different. A key has a structure different from its lock, but a claim directed to this lock and a claim directed to the key are considered to fulfill PCT Rule 13 as sharing a corresponding technical feature. For instance, M.P.E.P. example 8 (page AI-41) recites:

“Claim 1: Plug characterized by feature A.

Claim 2: Socket characterized by feature A.

Feature A is a special technical feature which is included in both claims 1 and 2, and therefore unity is present.”

The special technical feature which links Group I, II and III, so as to form a single general inventive concept according to PCT Rule 13, is evidenced by the *T. equigenitalis* specific monoclonal antibodies of Group I, *i.e.* monoclonal antibodies which recognize an epitope of a bacterium of the species *T. equigenitalis*, and which do not exhibit a cross

reaction with an epitope selected from the group consisting of epitopes of a bacterium whose genus is different from *Taylorella* and epitopes of a bacterium of a different *Taylorella* species. This appears from the purportedly distinct groups themselves. For instance, claims 20 and 21, which respectively relate to the immunogenic proteins of Group II and the monoclonal anti-antibodies of Group III, are directly linked to claim 17, *i.e.* to the *T. equigenitalis* specific monoclonal antibodies of Group I.

The *T-equigenitalis* specific antibody does have a structure which is different from the corresponding immunogenic *T. equigenitalis* specific protein or anti-antibody. However, as the plug and socket share the corresponding feature A (see above Example 8), the monoclonal antibodies of the present invention share with the proteins and the anti-antibodies (which are capable of interacting with the monoclonal antibodies) a corresponding special technical feature: *T. equigenitalis* specificity. Therefore, claims 17-19 (the monoclonal antibodies of Group I), claim 20 (the immunogenic proteins of Group II) and claim 21 (the monoclonal anti-antibodies of Group III) share this corresponding special technical feature of *T.equigenitalis* specificity, which is shown through each of their dependencies on claim 17. Thus, Groups I, II and III fulfill the unity of invention standard required for the U.S. national phase of a PCT patent application. Therefore, applicants respectfully traverse this restriction requirement and request that the unity of invention be recognized.

CONCLUSION

Applicants submit that the restriction requirement is improper. The special technical features of the present application simultaneously provide unity of invention and preclude the restriction of the claims. Accordingly, applicants respectfully request that this restriction requirement be withdrawn and that claims 17-39 be examined together.

Applicants submit that the present application is fully in condition for examination. An early examination on the merits is earnestly solicited.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 

Dawn M. Gardner
Registration No. 44,118

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Date: December 9, 1999